UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
BIN C15700
Seattle, WA 98115-0070

July 31, 2002

Daniel Mathis
U.S. Department of Transportation
Federal Highways Administration
Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Valley Grove Bridge Replacement Project, Walla Walla County, WA (WHB-02-196)

Dear Mr. Kulbacki:

Enclosed is the National Marine Fisheries Service's (National Oceanic and Atmospheric Administration (NOAA Fisheries)) biological opinion (Opinion) concluding formal Endangered Species Act consultation on the Valley Grove Bridge project in Walla Walla County, Washington as described in Walla Walla County's biological assessment (BA) dated November 2001. This Opinion addresses Middle Columbia River steelhead (*Onchorynchus mykiss*). Lower Columbia River/Southwest Washington coho salmon (*O. kisutch*), a candidate species, has also been considered in this opinion.

NOAA Fisheries has determined that the proposed action is not likely to jeopardize the continued existence of the listed species described above. An Incidental Take Statement provides non-discretionary terms and conditions to minimize the potential for incidental take of listed species.

In addition, this document also serves as consultation on Essential Fish Habitat for chinook salmon (*O. tshawytscha*) under the Magnuson-Stevens Act and its implementing regulations (50 CFR Part 600).

We appreciate the considerable effort and cooperation provided by your staff in completing this consultation. If you have any questions regarding this Opinion, please contact Bill Leonard at (360) 753-9887 of my staff in the Washington State Branch Office.

Sincerely,

for Michael R Course

D. Robert Lohn
Regional Administrator

Enclosure

cc: Kelley Jorgensen, WSDOT
Michael Kulbacki, FHWA

Endangered Species Act – Section 7 Consultation
Biological Opinion
&
Magnuson–Stevens Fishery Conservation & Management Act
Essential Fish Habitat Consultation

Valley Grove Bridge Replacement Project, Walla Walla County, Washington
WHB-02-196

Agency: Federal Highway Administration

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Issued by: F.r Michael R Crowe
D. Robert Lohn
Regional Administrator

Date: July 31, 2002

TABLE OF CONTENTS

1.0 INTRODUCTION

This document transmits the National Marine Fisheries Service's (National Oceanic and Atmospheric Administration (NOAA Fisheries)). Biological Opinion (BO) and Essential Fish Habitat (EFH) consultation based on our review of a project to replace the Valley Grove Bridge in Walla Walla County, Washington. Valley Grove Bridge crosses Dry Creek, a tributary to the Walla Walla River, which is a tributary to the Columbia River. Dry Creek is located in the Mid-Columbia River (MCR) evolutionary significant unit (ESU) and is EFH for chinook (*Oncorhynchus tshawytscha*) salmon.

1.1 Background Information & Consultation History

The Federal Highway Administration (FHWA) concluded that the project proposed by the lead agency, Walla Walla County Public Works Department, was likely to adversely affect MCR steelhead (*O. mykiss*). The existing bridge is in poor structural condition and sub-standard for existing traffic. The proposed replacement will upgrade the bridge to county highway standards and structural capacity. In addition, the new bridge will have a longer span and is designed to reduce an existing constriction of the stream channel at the project site.

The document is based on information provided in the Biological Assessment (BA) and subsequent telephone conversations and email correspondence with David Eids with Walla Walla County Department of Public Works and Benn Burke with Adolfson and Associates. Formal consultation was initiated on May 17, 2002 when NOAA Fisheries received a letter and BA describing the project from the FHWA.

1.2 Description of the Proposed Action

The FHWA proposes to fund, in whole or in part, a construction project to be constructed by Walla Walla County. The Walla Walla County Public Works Department proposes to replace the Valley Grove Bridge, which is the Valley Grove Road overcrossing of Dry Creek in Walla Walla County, Washington. The existing 40-foot-long by 20-foot-wide single-span concrete bridge will be demolished and replaced by a 120-foot-long by 32-foot-wide concrete superstructure bridge in the same location as the existing bridge.

1.2.1 Stream Isolation & Handling and Moving Fish

Fish removal and salvage from the dewatered portions of Dry Creek will be conducted by Washington Department of Fish and Wildlife (WDFW) biologists or other qualified fisheries biologists as follows (adapted from U.S. Army Corps of Engineers 2002).

Biologists will install block netting across the stream approximately 25 feet upstream and 25 feet downstream of the proposed dewatered section prior to any in-water work. The upstream net will be installed first. The biologists will then work the other net from the upstream location to the downstream location, to herd as many fish as possible from the work area. Mesh size shall

be 1/4 inch minimum. Block nets shall be checked periodically to remove leaf and other debris.

Due to the small channel and limited depth of Dry Creek during the construction window, a direct current Smith Root Model 12 backpack electrofisher (or equivalent) will be used to stun and remove fish remaining in the work area. It is anticipated that the first pass will be conducted at low voltage and frequency settings (approximately 300 volts and 30 hertz). The actual voltage and frequency will depend on water conductivity at the time the salvage operation occurs. Voltage and/or frequency will be increased following second and third passes, if necessary. Care will be taken in shallow waters, undercut banks, or around structures to avoid contact between the fish and the anode. Electrofishing will be performed in a manner that minimizes harm to fish. The stream segment will be worked systematically, moving the anode in a herringbone pattern through the water. Fisheries biologists will wait at least 30 minutes between passes. Fish removal will halt once salmonid fish are no longer collected.

Endangered Species Act (ESA) species will be released immediately, upstream of the upper block net. For the period between capture and release, all captured aquatic life will be immediately put in five gallon buckets filled with clean stream water. Frequent monitoring of water temperatures will occur to ensure the specimens are not unduly stressed. Fish will be identified, and enumerated. After each pass, all fish will be released to a quiet pool upstream of the work area. No fish will be retained.

A clean plastic bucket and a dip net will be retained onsite during installation of the diversion culvert to collect any remaining fish from dewatered areas. ESA species will be released immediately, upstream of the diversion. Fish will be identified, enumerated, and released to a quite pool upstream of the work area. No fish will be retained.

1.1.2 Construction of the Temporary Stream Bypass

After the in-water work area has been isolated and fish removal has been completed, the creek will be diverted by redirecting approximately 100 feet of above-ground stream flow through a three-foot diameter Corrugated Metal Pipe (CMP) culvert placed in the stream channel**.** Revetments and concrete ecology blocks (or a similar temporary diversion) will be installed at the upstream end of the bypass inlet to divert the entire flow of the stream into the culvert. A similar revetment will be installed at the downstream end of the bypass to prevent backwater from entering the work area. After the stream diversion is completed, the Dry Creek channel, between the upstream and downstream revetment areas, will be temporarily filled with clean gravel. The filled area will be used as a temporary work area during demolition and construction phases. On or before September 30, 2002 (after bank-stabilization work is completed), the gravel fill, bypass culvert, and diversion revetments will be removed from the stream channel.

1.2.3 Demolition of the Existing Bridge

The existing bridge will be demolished using cranes and other heavy equipment. A track-type excavator will be used to demolish the existing bridge into pieces that will fall onto the dewatered work area. The debris will be collected on geotextile fabric placed over the gravel fill. Subsequently, a tracked or tired front end loader will be used to collect the debris. Hand-held equipment such as pneumatic hammers or power saws may also be used to complete the removal effort. Upon completion of the bridge demolition and cleanup, the front end loader will be used to carefully remove the gravel fill to the contours of the original channel. The revetments and culvert will then be removed and stream flows redirected back to the original channel.

1.2.4 Construction of the New Bridge

Work on the replacement bridge will begin with the construction of the bridge substructure. The new single-span bridge will require the construction of abutments on the west and east banks. Construction of the substructure will include the following:

- Re-contouring stream banks (in the area of the bridge) to an approximately 2:1 slope;
- Driving steel piles to support the new concrete abutments;
- Pouring concrete abutment walls to complete the bridge substructure.

The new bridge abutments will be set back at least 10 feet from the top of the stream banks and constructed of poured-in-place concrete. Eighteen steel-pipe piles will be driven in place over a two-day period at the beginning of the project. Since the stream will be contained within a culvert and the new bridge abutments will be located out of the channel, contact between the stream and uncured concrete, grout, and cement will be avoided.

Once the replacement substructure is in place, decked girders will be raised onto the substructure with lifting equipment located on the banks above the ordinary high water mark (OHWM). The road approaches then will be widened from 20 feet to approximately 32 feet to match the width of the new bridge. The approaches will be tapered to match the existing road at the limits of the roadway improvements. The widened approaches will result in the addition of approximately 4,500 square feet of new impervious surface. The last phases of construction will involve the installation of beam guardrails on the approach roadway and concrete Jersey barriers on the bridge.

1.2.5 Clearing, Grading, and Bank Reconstruction

Approximately 44,200 square feet of land will be cleared and graded to facilitate construction of the widened bridge approaches. Most of this land, however, currently consists of either graveled road shoulders or disturbed agricultural lands.

Existing banks outside the bridge-removal area will remain undisturbed. However, reconstruction of the bank in the area of the existing bridge will be necessary since its removal

will uncover approximately 4,600 square feet of stream bank and riparian habitat. Bank reconstruction will include the construction of 2:1 slopes with riprap, and with geogrid fabric placed over a 4:1 slope (located below the 2:1 slope). The revegetation of these areas is discussed in section 1.2.7.

1.2.6 Construction of Stormwater Facilities

Currently, stormwater treatment is not provided for the existing roadway and bridge. Walla Walla County proposes to minimize effects of the added impervious surface by constructing a catch basin and water quality treatment swale at the northwest end of the new bridge. The catch basin will direct stormwater to an open-channel swale, where it will be collected before it infiltrates into the ground. The roadside conveyance system for this project has been designed to provide 100 percent treatment of stormwater from the entire roadway. This represents treatment of just under 300 percent of the new impervious surface.

1.2.7 Removal and Planting of Vegetation

Approximately 600 square feet of woody riparian vegetation will be cleared during construction of the project. After bridge demolition, cleanup and grading is completed, approximately 1,200 square feet of disturbed riparian habitat will be replanted with native woody species. Plant materials will be in one gallon (minimum) containers, and will consist of native, locally grown stock. Plantings will be spaced on approximately 6-foot centers. Plant materials shall be planted in rifts or clusters by species, with a minimum of three individuals per rift or cluster. Species shall include at a minimum blue elderberry and red-stem dogwood. Other native species such as serviceberry and wild rose may be added at the discretion of the contractor depending on availability and field conditions. In addition, approximately 200 linear feet of river bank will be planted with live willow or dogwood stakes (slips) installed on approximately one-foot centers. Live stakes will be installed over all areas treated with riprap and along all areas affected by the diversion (approximately 100 linear feet each bank). All disturbed areas will also be hydroseeded with a mixture of native grasses.

1.2.8 Timing of Project Activities

Construction is expected to take up to three months, from August through October. In-water work will occur between August 26 and September 30. Some staging and pre-construction preparation will occur prior to the approved start date. On or shortly after August 26, the channel within the work area will be diverted into a culvert and subsequently backfilled. The bridge will then be removed and the abutments, bank stabilization, revetments, and vegetation on the banks will be installed. The creek will be returned to its natural channel by no later than September 30, the earliest date that adult MCR steelhead might begin migrating through the action area. After stream flow is returned to its natural channel, work will be limited to the construction of the deck, installation of new beam guardrails, construction of stormwater treatment facilities, and other out-of-water construction activities.

1.3 Description of the Action Area

The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 C.F.R 402.02).

The action area is defined as the stream channel which includes the water, and land (including submerged land) from approximately 250 feet upstream of the existing Valley Grove Bridge to approximately one river mile downstream from Valley Grove Bridge. The action area also includes the adjacent riparian zone within the construction area and all areas affected by the project including staging areas, catch basins, and roadways.

2.0 ENDANGERED SPECIES ACT

2.1 Biological Opinion

2.1.1 Status of Species

2.1.1.1 Middle Columbia River Steelhead

MCR steelhead were listed as threatened under the ESA in 1999 (64 Fed. Reg. 14517; March 25, 1999). Steelhead of the Snake River Basin are not included in the MCR ESU.

All steelhead in the Columbia River Basin upstream from the Dalles Dam are summer-run, inland steelhead (Busby *et al.* 1996). Summer steelhead generally return to freshwater between May and October after spending one or, more commonly, two years in oceanic waters (Busby *et al.* 1996, Wydowski and Whitney 1979). Returning steelhead in the Columbia River generally spend an additional year in freshwater before spawning (Wydowski and Whitney 1979). In Washington, most populations begin spawning in February or March (Busby *et al.* 1996). Depending on water temperature, steelhead eggs incubate for 1.5 to 4 months before hatching (61 Fed. Reg. 41542; August 9, 1996). Bjornn and Reiser (1991) noted that steelhead eggs incubate about 85 days at 4 degrees Celsius and 26 days at 12 degrees Celsius to reach 50 percent hatch. In wild populations, juveniles generally migrate to sea at age two, but hatchery conditions permit steelhead to smolt after only a single year (Wydowski and Whitney 1979).

Six stocks of steelhead within the MCR ESU were identified as at risk of extinction or of special concern (Nehlsen *et al*. 1991). Steelhead are still found throughout much of their historic range in the Walla Walla River basin, though populations have declined. Long-term spawning surveys have not been conducted on the Walla Walla River, and, as a consequence, reliable population estimates are unavailable (WDF *et al*. 1993). WDF *et al*. (1993) identified the stock as depressed and Nehlson *et al.* (1991) identified it as of special concern. Several factors have contributed to the decline of MCR steelhead. These include habitat degradation resulting from grazing and water diversion, overharvest, predation, hydroelectric dams, hatchery introgression, drought, and other natural or human-induced factors (Busby *et al*. 1996).

Currently steelhead are the only anadromous salmonids known to spawn in the Walla Walla River system (Columbia River Inter-Tribal Fish Commission 2001). Steelhead are found in the Walla Walla River including the North and South Forks and several of their tributaries, Mill Creek and several of its tributaries, Dry Creek, and the Touchet River including the North and South Forks, Wolf Fork, Robinson Fork, Spangler Creek, Lewis Creek, Jim Creek, Patit Creek, and Coppei Creek (Kuttel 2001).

Steelhead begin entering the Walla Walla system as early as September or October but, if necessary, they will delay upstream migration until stream conditions become favorable (Bjornn and Reiser 1991). Peak adult migration occurs in early November but migration timing may vary from year to year depending on weather or flow conditions. Most of the spawning in the Walla Walla River system occurs near the headwaters where riparian vegetation, water temperatures, and gravel are more suitable. Historically, steelhead likely spawned throughout the watershed. In the action area, Dry Creek provides rearing habitat for juvenile steelhead and serves as a migratory corridor for MCR steelhead that spawn farther upstream.

There is no direct commercial fishery on this stock although incidental catch of wild steelhead occurs in the Columbia River. Moreover, the Cayuse, Walla Walla, and Umatillas, known collectively as the Confederated Tribes of the Umatilla Indian Reservation, harvest this stock at unknown numbers.

WDFW and Oregon Department of Fish and Wildlife (ODFW) monitor spawner escapement for the Walla Walla stock but estimates are imprecise due to partial sampling. However, based on available data, the steelhead stock in the Walla Walla is classified as depressed (WDF *et al*. 1993).

Busby *et al.* (1996) provides 14 independent stock indices for which trends could be computed for MCR steelhead. This analysis indicates that ten of the stocks were declining and four were increasing during the periods for which data were available. Steelhead in the Touchet River, located in the Walla Walla basin downstream from the project area, are reported to be declining at a rate of 2.7 percent per year, with the total escapement of greater than 5,000 (*op cit*.). Considering that WDFW plants hatchery-raised fish in the Touchet River at Dayton (Kuttel 2001), this represents an inflated estimate of the wild steelhead run size.

2.1.1.2 Population Trends and Risks

McClure *et al.* (in press) calculated the annual population growth rate (lambda) in Mill Creek (a tributary of the Walla Walla River upstream of Dry Creek) at 0.97 and estimated the risk of a 90 percent decline within 25 years at 0 (1–1.14) and the risk of a 90 percent decline in 50 years at 0.02 (0–1) (95 percent confidence interval).

2.1.2 Evaluating the Proposed Action

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by

50 C.F.R. Part 402. The NOAA Fisheries must determine whether the action is likely to jeopardize the listed species. This analysis involves the initial steps of defining the biological requirements of the listed species, and evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NOAA Fisheries evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NOAA Fisheries must consider the estimated level of mortality attributed to the collective effects of the proposed or continuing action, the environmental baseline, and any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmon's life stages that occur beyond the action area.

2.1.2.1 Biological Requirements

The relevant biological requirements are those necessary for MCR steelhead to survive and recover to naturally reproducing population levels at which time protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance their capacity to adapt to various environmental conditions, and allow them to become self-sustaining in the natural environment.

Biological requirements are defined as properly functioning conditions (PFC) of habitat conditions that are relevant to any steelhead life stage. These habitat conditions include all parameters of the matrix of pathways and indicators described in NOAA Fisheries (1996). Information related to biological requirements for MCR steelhead can be found in Busby *et al*. (1996). Presently, the biological requirements of listed species are not being met under the environmental baseline. The biological requirements specifically affected by the proposed action include water quality (*i.e.*, sediment/turbidity) and riparian reserves.

2.1.2.2 Environmental Baseline

The environmental baseline represents the current set of basal conditions to which the effects of the proposed action are then added. Environmental baseline is defined as "the past and present impacts of all Federal, State, and private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or informal section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation process" (50 C.F.R 402.02). The term "action area" is defined as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action."

The proposed project is located in the Walla Walla River watershed in Walla Walla County, Washington. The Walla Walla River is a tributary to the Columbia River and drains an area of approximately 1,758 square miles with the headwaters in the Blue Mountains and the Palouse Hills. The project area is located along Dry Creek, approximately 15 miles upstream from the

confluence with the Walla Walla River (at river mile 29.4). Dry Creek is approximately 35 miles in length and drains an area of approximately 35 square miles (Hancock 2001).

The Dry Creek subbasin is dominated by agricultural land use. Surface waters throughout most of the subbasin lack large woody debris (LWD) and have narrow strips of riparian vegetation. The subbasin is characterized by low stream flows (exacerbated by surface water withdrawals), high water temperatures, heavily silted substrates, and many stream reaches that have been altered by diking and/or channelization (Kuttel 2001). Dry Creek has experienced severe channel incision, with some highly unstable areas downcut 40 to 50 feet (Reckendorf 2001).

Agricultural lands comprise 58 percent of the watershed, while forestland and rangeland cover 25 percent and 17 percent respectively (U.S. Army Corps of Engineers 1997). Agricultural activities have seriously degraded salmonid habitat in many areas of the watershed. Practices such as farming to the edge of streams, removing riparian vegetation, filling off-channel areas, diking and channelization, allowing livestock full access to streams, conversion of native perennial vegetation to annual crops, and irrigation have all played roles in habitat degradation (Bureau of Reclamation 2001; U.S. Army Corps of Engineers 1997; Mendel *et al.* 2001; Saul *et al.* 2001).

The major limiting factor throughout the Walla Walla subbasin appears to be water diversions and withdrawals, which apparently are resulting in low stream flows and fish kills. The WDFW estimates that less than ten percent of surface water diversions in the Washington portion of the basin meet state or federal juvenile fish screening criteria (Kuttel 2001). Bireley (2001) reported that over 75 percent of the diversions identified in the Cooperative Compliance Review Program (CCRP) are located in streams utilized for salmonid spawning, rearing, and migration. The high incidence of non-compliant surface water diversions is a serious threat to federally listed juvenile salmonids. Furthermore, it is likely that the diversions identified in the CCRP may represent only 50 percent to 60 percent of surface water diversions currently in use in the Washington portion of the basin. At least 21 irrigation diversions on Dry Creek are known to be in use.

Stream habitats within the action area include a mix of glides, low-gradient riffles, and pools. Upstream of the bridge, the stream flow forms a glide over predominantly large gravel and small cobble with sand and silt deposits. Downstream of the bridge, the stream transitions to a shallow riffle that extends for approximately 200 feet. Available refugia and off-channel habitat is limited in the action area due to bank erosion, and, consequently, the action area is at risk for these baseline indicators. There is sparse woody vegetation in the action area. Riparian vegetation consists of a narrow band of locust, willow, black cottonwood, serviceberry, and reed canarygrass. Woody debris is of small diameter. The action area is not properly functioning for both the woody debris and riparian reserves baseline indicators.

2.1.2.3 Factors Affecting Species Environment within Action Area

In general, the baseline conditions in the Walla Walla subbasin are degraded. The three most limiting factors are water quantity, water quality, and habitat conditions (NOAA Fisheries 2000).

None of the habitat indicators are properly functioning in the action area.

Both legal and illegal water withdrawals for irrigation have significantly reduced water quantity in the Walla Walla River and its tributaries. The stream channel within the action area is characterized by a lack of off-channel habitat, few wetlands, and stream-flow regimes with high winter peaks and low summer flows (and associated high temperatures). Dry Creek has had average flows of 1.4 cubic feet per second (cfs) and has been recorded as low as 0.1 cfs in August from 1949–1967 (USGS 1985). Narrow, incised channels, flat gradients, and low flows have conspired to create poor conditions for fish including isolated pools and stagnant flows. Off-channel habitats are nearly non-existent along the reach as a result of severe channel incision (Kuttel 2001).

Some sections in the Lower Walla Walla subbasin (including Dry Creek) have been designated as water quality limited under Section 303(d) of the Clean Water Act because of temperature and pollution. As of 1984, 252,000 tons per year fine sediment were delivered from cropland to streams in the Dry Creek subbasin. For comparison, forestlands delivered 354 tons per year (USDA SCS *et al.* 2001). Water temperatures can reach 74 degrees Fahrenheit or more in summer months near the project area (Bambrick pers. comm. 2002; Hancock 2001).

Agricultural land uses, urban and rural development, and roads have altered channel dynamics and hydrology in the basin (NMFS 2000). The river banks in the action area are steep and unstable and support only isolated, narrow strips of riparian vegetation. Streambank conditions and floodplain connectivity in the action area are degraded by bank armoring, levees, channelization, and other flood control measures. Stream buffers are very narrow and woody vegetation is mostly immature. The abundance of LWD is extremely low and recruitment of LWD is poor.

2.1.3 Effects Of the Proposed Action

The proposed replacement of the Valley Grove Bridge is likely to adversely affect MCR steelhead as determined by the FHWA. The segment of Dry Creek flowing through the action area provides rearing habitat for juvenile steelhead, and is a corridor for steelhead migrations between the Walla Walla River and spawning habitats in the Dry Creek headwaters.

The ESA implementing regulations define "effects of the action" as "the direct and indirect effects of an action on the species together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline." Indirect effects are those that are caused by the proposed action, are later in time, but are still reasonably certain to occur (50 C.F.R. 402.02).

The proposed project would replace an existing bridge with a design that improves channel dynamics, water flow, and floodplain connectivity. As such, the primary adverse effects of the project are the direct effects of the construction activities required to replace the existing bridge.

2.1.3.1 Direct Effects

Direct effects are the immediate effects of the project on the species or its habitat. Direct effects result from the agency action and include the effects of interrelated actions and interdependent actions. Future Federal actions that are not a direct effect of the action under consideration (and not included in the environmental baseline or treated as indirect effects) are not evaluated.

Juvenile and adult steelhead may inhabit the action area during the proposed construction periods. Generally, the direct effects are related to the duration (1–2 months) of construction activities in or adjacent to Dry Creek. The negative effects associated with the proposed project are likely to be short in duration and will be minimized through restrictions in timing and duration of construction.

2.1.3.1.1 Diversion of Stream and Removal of Fish

After isolating the work area with block nets, a trained fish biologist will use seines and dip nets to capture and/or move fish. This handling has been shown to increase plasma levels of cortisol and glucose in fish (Hemre and Krogdahl 1996, Frisch and Anderson 2000). Subsequently, electrofishing will be conducted. Electrofishing may result in direct mortality of young-of-the-year or juvenile steelhead. Physical injuries from electrofishing include internal hemorrhaging, spinal misalignment, or fractured vertebrae. Although the practice is potentially hard on fish, the electrofishing is intended to further locate residual fish in the isolated work area to reduce incidental take. The likelihood of injury or mortality will be minimized by using a qualified biologist to ensure the safe capture, handling, and release of fish.

The temporary diversion of the creek into a culvert may result in the incidental stranding of juvenile steelhead. Additionally, the diversion of water through a culvert will impede the movement of steelhead for 14 to 15 weeks. The effects of the temporary stream diversion will be minimized by sizing the culvert to ensure fish passage. Moreover, adverse affects to migration will be minimized further by restricting construction activities to August 26 to September 30, when adult steelhead migration and spawning have been completed and out-migrating smolts are expected to have emigrated.

The temporary diversion of the creek through a culvert will also cause a temporal loss of macroinvertebrate habitat. Aquatic invertebrates serve as an important source of prey for salmonids, and the loss of aquatic invertebrate habitat may reduce foraging opportunities for listed salmonids. Effects associated with the disruption of the streambed is likely to be short-lived as invertebrates tend to rapidly recolonize disturbed areas (Allan 1995).

2.1.3.1.2 Water Quality

The expected negative effects associated with grading, excavation, the installation of dewatering barriers, culvert, and the back-filling and removal of the temporary construction area include short-term increases in turbidity and sediment levels during construction. Deposition of fine

sediment can significantly degrade instream spawning habitat, reduce survival of steelhead from egg to emergence (Phillips *et al*. 1975), and reduce intergravel cover (Spence *et al*. 1996). Suspended sediments can cause sublethal effects such as elevated blood sugars and cough rates (Servizi and Martens 1992), physiological stress, and reduced growth rates. Elevated turbidity levels can reduce the ability of salmonids to detect prey, cause gill damage (Sigler 1980, Lloyd *et al*. 1987), and cause juvenile steelhead to leave rearing areas (Sigler *et al*. 1984). Additionally, short-term pulses of suspended sediment have been shown to influence territorial, gill-flaring, and feeding behavior of salmon under laboratory conditions (Berg and Northcote 1985).

These negative effects will be minimized through recommended restrictions in timing and duration of construction, and the use of temporary erosion and sediment control measures identified in the BA. It is expected that listed species present during construction will seek refugia or will avoid portions of stream with high turbidity and sediment levels. Overall, the increased turbidity and sediment are not expected to influence the environmental baseline over the long term.

2.1.3.1.3 Disturbance of Streambed

Demolition of the existing bridge, placement of dewatering barriers, temporary culverting and backfilling of the stream channel, and removal of debris and backfill from the construction area will disturb the substrate of Dry Creek. While it is unlikely that the instream work will affect spawning habitat long term, instream work may harm fish by homogenizing the substrate and reducing the diversity of benthic habitat in the river bed. Additionally, the use of heavy equipment in the riparian areas and within the streambed might cause compaction of soils resulting in reduced infiltration at the project site. Such compacting decreases the stability of the banks, reduces recruitment of riparian vegetation, which results increases deposition of fine sediments into the river. To minimize the disturbance of the streambed, the contractor will stay within the work area and designated access routes. Additionally, the proposed riparian plantings and removal of the old bridge abutments should result in long-term improvements in streambed conditions within the action area.

2.1.3.1.4 Removal of Riparian Vegetation

Riparian vegetation links terrestrial and aquatic ecosystems, influences channel processes, contributes organic debris to streams, stabilizes streambanks, and modifies water temperatures (Gregory *et al*. 1991). Removal of vegetation may result in increased water temperatures that would further degrade already impaired water temperatures in the action area. Elevated water temperatures may adversely affect salmonid physiology, growth and development, alter life history patterns, induce disease, and may exacerbate competitive predator-prey interactions (Spence *et al*. 1996). Loss of vegetation also may reduce allochthonous inputs to the stream. Woody debris provides essential functions in streams including the formation of habitats. Additionally, the removal of vegetation decreases streambank stability and resistance to erosion.

Like most of the Lower Walla Walla subbasin, the action area exhibits poor riparian conditions

(Kuttel 2001). The removal of riparian vegetation could adversely affect the action area which already lacks properly functioning riparian areas. However, the proposed replanting of disturbed riparian areas will minimize adverse affects on riparian function in the action area.

2.1.3.1.5 Interrelated and Interdependent Effects

This project consists of the replacement of the existing substandard bridge with a new two-lane bridge that meets current safety and load requirements. This is an in-kind replacement that will not affect changes in traffic patterns or traffic volumes. Consequently, interrelated or interdependent effects are not anticipated to result from the project.

2.1.3.1.6 Population Trends and Risks

In the short term the proposed action will have short-term (construction-related) adverse affects on water quality, in-stream habitat, and riparian reserves. In the long term, however, the project will result in incremental, beneficial affects on floodplain connectivity, in-stream habitat, and riparian reserves. Additionally, the timing and duration of in-stream work activities will minimize the affects on MCR steelhead. Therefore, the proposed action is unlikely to influence the pre-project lambda estimates.

2.1.3.2 Indirect Effects

Indirect effects are caused by or result from the proposed action, are later in time, and are reasonably certain to occur. Indirect effects may occur outside of the area directly affected by the action. Indirect effects might include other Federal actions that have not undergone section 7 consultation but will result from the action under consideration. These actions must be reasonably certain to occur, or they are a logical extension of the proposed action.

2.1.3.2.1 Impervious Surface & Stormwater Facilities

There are several adverse effects associated with adding impervious surface such as roads to a watershed. Those adverse effects are described in further detail below. The extent to which steelhead detect adverse effects associated with impervious surfaces depends on several factors. Impervious surfaces can affect steelhead by degrading water quality, water temperature, and/or hydrology of stream habitat. Stormwater treatment facilities and other techniques can reduce the adverse affects of those changes if they are incorporated into the project.

Impervious surfaces affect the watershed in several ways. The addition of impervious surface will result in increased stormwater runoff and alteration of existing drainage patterns in the action area. Such effects to hydrology typically include increased frequency and duration of peak flows and the presence of peak flows during periods when none previously existed. Increased impervious area also can shift the hydrologic regime from subsurface to surface runoff and may result in higher and more frequent peak flows even with small storms. Increased peak flows and increased frequency and duration of peak flows can adversely alter steelhead habitat

through lateral erosion, bed scour, downcutting, bank de-stabilization, and removal of woody debris. In addition, increasing peak flows reduces groundwater recharge which in turn decreases base flows. Decreased base flow, may create migration barriers, strand fish in disconnected habitats, and increase stream temperatures.

Research indicates a negative relationship between impervious surface and water quality associated with stormwater runoff (Schueler 1984). In urban areas, roads act as conduits of stormwater runoff and pollutants from impervious areas directly to streams. May *et al*. (1997) discussed declines in biological integrity and habitat quantity and quality as the level of impervious surface area increased above five percent. Large rainstorms and subsequent high flows can elevate total suspended solids, turbidity, and nutrient concentrations in urban watersheds. Additionally, chemical water quality generally declines as urbanization increases (May *et al*. 1997). Increased impervious surface also contributes to water temperature increases in streams (Schueler 1984). The addition of impervious surface to the watershed, including riparian areas, will also result in a permanent loss of opportunity for revegetation in the areas where those surfaces are added.

Although there are some city centers with high-density road networks, most of the subbasin has few roads and low-density road networks. The proposed road project will create 4,500 square feet of new impervious surface, which is a relatively small increase in the Lower Walla Walla River basin. The project will not add lanes to the road and does not increase the road network in the action area. The watershed is dominated by large open spaces with ample opportunity to restore vegetation within the watershed without using the newly paved areas.

The proposed project will avoid or minimize adverse changes in hydrology by creating stormwater treatment facilities designed to treat the runoff generated from the road improvement project. Stormwater treatment will minimize disruption of the hydrology of the system, and remove pollutants and fine sediments from surface water. Detention basins will infiltrate treated stormwater, and, consequently, will minimize the adverse affects on instream flows more than detention alone.

The Walla Walla subbasin, including the Dry Creek watershed, has a relatively low-density road network and the bridge replacement will not increase the road network in the watershed. The proposed project will add impervious surface to the action area, but the proposed catch basin and stormwater treatment swale will appropriately minimize the effects of stormwater resulting from the proposed project.

2.1.3.2.2 Changes in Fluvial Transport and Channel Morphology

The complete removal of the existing bridge and its replacement with a longer, single-span bridge will improve the transport of sediment and large woody debris, which is important in the formation of diverse habitats. The new bridge will also be higher than the existing bridge and will pass the 100 year flood. Consequently, the project will result in improvements in fluvial transport and channel morphology in the action area.

2.1.4 Cumulative Effects

Cumulative effects are defined as "those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation" (50 C.F.R. 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA

Two other bridges on Dry Creek are currently planned for replacement within the next 5 years. WSDOT has preparing plans to replace the SR 12 bridge and Walla Walla County is preparing plans to replace the bridge on Aldridge Road bridge (David Eids pers. comm.). These projects are designed to replace old bridges (with abutments located in the active creek channel) with newer designs that span the floodplain. Consequently, these projects will result in improvements in the fluvial transport and channel morphology of Dry Creek.

In the action area for this project, agricultural activities are the main land use. Riparian buffers are not properly functioning, containing little woody vegetation. Agricultural practices leave little stream buffer width. The NOAA Fisheries does not expect any further habitat degradation from agricultural practices. NOAA Fisheries assumes that non-Federal land owners in those areas will also take steps to minimize or avoid land management practices that would result in the take of MCR steelhead. Such actions are prohibited by section 9 of the ESA.

2.1.5 Conclusion

There will be short-term direct impacts associated with the proposed activities. The temporary diversion of Dry Creek will necessitate the removal of fish from dewatered areas, and will result in displacement of fish in Dry Creek. Moreover, demolition and construction activities will result in temporary increases of sediment and turbidity levels. However, potential adverse effects will be minimized through the use of Best Management Practices in the design and construction. The bridge replacement will increase the amount of over-water structure above Dry Creek. This conclusion is based on the following factors: 1) timing restrictions related to in-water construction will minimize impacts to fish and their habitat, 2) replacement of a longer bridge will improve passage conditions for all life stages of salmonids and will improve channel morphology, 3) the installation of stormwater facilities will minimize the effects of increased impervious surface added to the Walla Walla watershed, and 4) riparian vegetation removal will be minimized and replaced. NOAA Fisheries concludes that the proposed action is not likely to impair properly functioning habitat or appreciably reduce the functioning of already impacted habitat. Furthermore, NOAA Fisheries concludes that the proposed action is unlikely to adversely influence existing population trends or risks in the action area. Overall, the proposed activities are not expected to appreciably reduce the likelihood of survival of MCR steelhead. Therefore, the proposed action is not likely to jeopardize the continued existence of MCR steelhead.

2.1.6 Reinitiation of Consultation

Consultation must be reinitiated if the amount or extent of taking specified in the Incidental Take Statement is exceeded, or is expected to be exceeded; new information reveals effects of the action may affect listed species in a way not previously considered; the action is modified in a way that causes an effect on listed species that was not previously considered; or, a new species is listed or critical habitat is designated that may be affected by the action (50 C.F.R. 402.16).

2.2 Incidental Take Statement

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Harm is further defined as significant habitat modification or degradation that results in death or injury to listed species by "significantly impairing behavioral patterns such as breeding, spawning, rearing, migrating, feeding, and sheltering" (50 C.F.R. 222.102). Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such takings is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the effects of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize take and sets forth terms and conditions with which the action agency must comply to implement the reasonable and prudent measures.

2.2.1 Amount or Extent of Take Anticipated

The proposed action is reasonably certain to result in incidental take through harm and harassment of juvenile steelhead. The exact numerical extent of take is difficult to determine, and therefore has not been quantified. Instead, the extent of effects on habitat in the action area have been analyzed and Reasonable and Prudent Measures have been developed to minimize the extent of those effects. The mechanisms of take that are reasonably certain to occur during project activities include work in the water, temporary diversion of the creek, construction effects including sediment mobilization, vegetation removal, and hydrologic changes related to increased impervious surface.

2.2.2 Reasonable and Prudent Measures

The NOAA Fisheries believes that the following reasonable and prudent measures (RPM) are necessary and appropriate to minimize incidental take of MCR steelhead:

1. To minimize the amount and extent of incidental take from construction activities, measures shall be taken to limit the timing, duration, and extent of construction within the OHWM.

2. To minimize the amount and extent of incidental take from isolation and fish handling, measures shall be taken ensure that prudent methods are used that will minimize risk of injury to listed species.

3. To minimize the amount and extent of incidental take from construction activities in or near the creek, effective erosion and pollution control measures shall be developed and implemented throughout the area of disturbance and for the life of the project. The measures shall minimize the movement of soils and sediments both into and within the creek, and stabilize bare soil over both the short and long term.

5. To minimize the amount and extent of take from loss of instream habitat, measures shall be taken to minimize impacts to riparian and instream habitat, or where impacts are unavoidable, to replace or restore lost riparian and instream function.

6. To minimize take, FHWA shall ensure effectiveness of implementation of the RPMs, the erosion control measures and plantings for site restoration shall be monitored and evaluated both during and following construction, and meet criteria as described below in the terms and conditions.

2.2.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the FHWA must ensure that Walla Walla County complies with the following terms and conditions, which implement the RPMs described above. Implementation of the terms and conditions within this BO will further reduce the risk of impacts to MCR steelhead. These terms and conditions are non-discretionary.

1. To implement RPM No. 1 (construction within the OHWM) above, the FHWA shall ensure that:

   1.1 All work within the active channel of Dry Creek will be completed between August 26 and September 30, 2002. Any additional extensions of the in-water work period will first be approved by and coordinated with NOAA Fisheries and WDFW.

   1.2 Planned alteration or disturbance of streambanks and existing riparian vegetation will be minimized to extent described in the BA.

   1.3 All water intakes used for the project, including pumps used to work in-water work areas, will have fish screens installed, operated, and maintained according to NOAA Fisheries' fish screen criteria.[1]

[1] NMFS, Juvenile Fish Screen Criteria (revised February 16, 1995) and Addendum: Juvenile Fish Screen Criteria for Pump Intakes (May 9, 1996) (guidelines and criteria for migrant fish passage facilities, and new pump intakes and existing inadequate pump intake screens) (http://www.nwr.noaa.gov/1hydrop/hydroweb/ferc.htm).

2. To implement RPM No. 2 (isolation and fish handling), the FHWA shall ensure that the following requirements are fully implemented.

2.1 The work area shall be well isolated from the flowing stream using the measures described in the BA and which are incorporated here by reference.

2.2 A biologist experienced with work-area isolation shall ensure the safe handling of all ESA-listed fish and shall conduct or supervise the entire capture and release operation.

2.3 The capture team must comply with NOAA Fisheries' electrofishing guidelines[2].

2.4 The capture team must handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during capture and transfer procedures to prevent the added stress of out-of-water handling.

2.5 Captured fish must be released as near as possible to the capture area.

2.6 ESA-listed fish may not be transferred to anyone except NOAA Fisheries personnel, unless otherwise approved in writing by NOAA Fisheries.

2.7 Other Federal, state, and local permits necessary to conduct the capture and release activity must be obtained.

2.8 NOAA Fisheries or its designated representative must be allowed to accompany the capture team during the capture and release activity, and must be allowed to inspect the capture team's capture and release records and facilities.

2.9 The capture team must complete the In-water Construction Monitoring Report form (Appendix 1) for all salmonids encountered during isolation and fish-movement operations. By December 31 of the year following the completion of construction, the FHWA shall submit to NOAA Fisheries (Washington Branch) a monitoring report with the results of the monitoring.

3. To implement RPM No. 3 (construction activities), the FHWA shall ensure that all temporary erosion and sediment control (TESC) and pollution control measures included in the BA are included as special provisions in the contract. A TESC plan shall be prepared by Walla Walla County and reviewed by the WSDOT and FHWA. The TESC plan will outline how and to what specifications various erosion control devices will be installed to meet water quality standards, and will provide a specific inspection protocol and time response. Erosion control measures shall be sufficient to ensure compliance

[2] NMFS, Backpack Electrofishing Guidelines (December 1998) (http://www.nwr.noaa.gov/1salmon/salmesa/pubs/electrog.pdf).

with applicable water quality standards and this BO. The TESC plan shall be included in the project plans and implemented by the Contractor.

3.1 Construction within the project vicinity will not begin until all temporary erosion controls (*e.g.*, sediment barriers and containment curtains) are in place. Erosion control structures will be maintained throughout the life of the contract.

3.2 All exposed areas will be replanted with a native seed mix. Erosion-control planting will be completed on all areas of bare soil in compliance with project specifications.

3.3 All equipment used for in-water work will be cleaned prior to entering the active channel of Dry Creek. External oil and grease will be removed. Untreated wash and rinse water will not be discharged into streams and rivers without adequate treatment.

3.4 Material removed during excavation shall only be placed in a manner that prevents it from eroding back into the channel.

3.5 Measures will be taken to prevent construction debris from falling into the stream or riparian area. Any material that falls into a stream during construction operations will be removed in a manner that has a minimum impact on the streambed and water quality.

3.6 The Contractor will develop an approved, site-specific Spill Prevention and Countermeasure or Pollution Control Plan (PCP), and is responsible for containment and removal of any contaminants released. The Contractor will be monitored by the FHWA to ensure compliance with this PCP.

3.7 Areas for fuel storage, refueling, and servicing of construction equipment and vehicles will be at least 150 feet from the stream channel and all machinery fueling and maintenance will occur within a contained area. Overnight storage of vehicles and equipment must also occur in designated staging areas.

4. To implement RPM No. 4 (riparian habitat protection), the FHWA shall ensure that:

4.1 Alteration of native vegetation will be minimized. Where native vegetation will be altered, measures shall be taken to ensure that roots are left intact. This will reduce erosion while still allowing room to work.

4.2 Riparian vegetation will be replaced with a native seed mix, shrubs, and trees. All disturbed riparian areas shall be replanted with native woody species at a minimum planting density of three foot on-center for cuttings and six foot on-center for rooted trees and shrubs.

5. To implement RPM No. 5 (monitoring), the FHWA shall ensure that:

5.1 Erosion control measures as described above in RPM No. 2 shall be monitored.

5.2 All riparian plantings will be monitored yearly for three years to ensure that finished grade slopes are at stable angles of repose and that woody plantings are achieving a minimum of 80 percent cumulative survival.

5.3 If the success standard specified above in RMP No.5.2 is not achieved, dead plantings shall be replaced to bring the site into conformance. If failed plantings are deemed unlikely to succeed, replacement plantings shall be conducted at other appropriate locations in the project area.

5.4 By December 31 of the year following the completion of construction, the FHWA shall submit to NOAA Fisheries (Washington Branch) a monitoring report with the results of the monitoring required in terms and conditions 5.1 and 5.2 above.

5.6 In each of the two years following completion of construction, the FHWA shall submit to NOAA Fisheries (Washington Branch) a monitoring report with the results of monitoring requirements of 5.3 and 5.4 above.

3.0 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

3.1 Background

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a Federal fisheries management plan. Pursuant to the MSA:

- Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH (§305(b)(2));
- NOAA Fisheries must provide conservation recommendations for any Federal or State activity that may adversely affect EFH (§305(b)(4)(A));
- Federal agencies must provide a detailed response in writing to NOAA Fisheries within 30 days after receiving EFH conservation recommendations. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NOAA Fisheries, the Federal agency must explain its reasons for not following the recommendations (§305(b)(4)(B)).

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting this definition of EFH: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate

includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle (50 C.F.R. 600.110). Adverse effect means any impact which reduces quality and/or quantity of EFH, and may include direct (*e.g.*, contamination or physical disruption), indirect (*e.g.*, loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 C.F.R. 600.810).

EFH consultation with NOAA Fisheries is required regarding any Federal agency action that may adversely affect EFH, including actions that occur outside EFH, such as certain upstream and upslope activities.

The objectives of this EFH consultation are to determine whether the proposed action would adversely affect designated EFH and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH.

3.2 Identification of EFH

Pursuant to the MSA the Pacific Fisheries Management Council (PFMC) has designated EFH for three species of federally-managed Pacific salmon: chinook; coho (*O. kisutch*), and Puget Sound pink salmon (*O. gorbuscha*) (PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC 1999), and longstanding, naturally impassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based, in part, on this information.

3.3 Proposed Actions

The proposed action and action area are detailed above in Sections 1.3 and 1.4 of this document. The action area includes habitats that have been designated as EFH for various life-history stages of chinook.

3.4 Effects of Proposed Actions

As described in detail in Section 2.1.3 of this document, the proposed action may result in detrimental short- and long-term impacts to a variety of habitat parameters. These adverse effects are:

1. Short-term degradation of habitat due to the temporary filling of approximately 100 linear feet of the stream channel and the temporary culverting of Dry Creek.

2. Short-term degradation of water quality in the action area due to an increase in turbidity and contaminants during in-water construction.

3. Short-term degradation of habitat due to removal of riparian vegetation.

3.5 Conclusion

NOAA Fisheries believes that the proposed actions may adversely affect EFH for chinook salmon.

3.6 EFH Conservation Recommendations

Pursuant to Section 305(b)(4)(A) of the MSA, NOAA Fisheries is required to provide EFH conservation recommendations to Federal agencies regarding actions that would adversely affect EFH. While NOAA Fisheries understands that the conservation measures described in the BA will be implemented by the Walla Walla County, it does not believe that these measures are sufficient to address the adverse impacts to EFH described above. Consequently, NOAA Fisheries recommends that the Walla Walla County implement the following conservation measures to minimize the potential adverse effects to EFH for chinook salmon:

1. Adopt Terms and Conditions 1.1 through 1.3, as described in Section 2.2.3, to minimize EFH adverse to minimize EFH adverse affects No.1.
2. Adopt Terms and Conditions 3.1 through 3.7, as described in Section 2.2.3, to minimize EFH adverse affects No.2.
3. Adopt Terms and Conditions 4.1, 4.2, and 5.1 through 5.3 as described in Section 2.2.3, to minimize EFH adverse affects No.3.

3.7 Statutory Response Requirement

Pursuant to the MSA (§305(b)(4)(B)) and 50 C.F.R. 600.920(j), Federal agencies are required to provide a detailed written response to NOAA Fisheries' EFH conservation recommendations within 30 days of receipt of these recommendations. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity on EFH. In the case of a response that is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

3.8 Supplemental Consultation

The FHWA must reinitiate EFH consultation with NOAA Fisheries if the proposed action is substantially revised in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NOAA Fisheries' EFH conservation recommendations (50 C.F.R. 600.920(k)).

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APPENDIX I
In-Water Construction Monitoring Report

In-Water Construction Monitoring Report
Valley Grove Bridge Replacement (NMFS WSB-02-196)

Start Date: _____
End Date: _____

Waterway: Dry Creek, Walla Walla County

Construction Activities:

_____
_____
_____
_____
_____

Number of fish observed: _____
Number of salmonid juveniles observed (what kind?): _____
Number of salmonid adults observed (what kind?):

_____

What were fish observed doing prior to construction?_____
_____
_____

What did the fish do during and after construction? _____
_____
_____
_____

Number of fish stranded as a result of this activity: _____

How long were the fish stranded before they were captured and released to flowing water?

_____
_____
_____

Number of fish that were killed during this activity: _____

Send report to:
National Marine Fisheries Service, Washington State Habitat Branch, 510 Desmond Dr. SE, Suite 103, Lacey, WA 98503